

Robert W. Hayes, Ronald M. Hughes Made Foremen In Inspection And Utilities



Robert W. Hayes



Ronald M. Hughes

Two additional promotions are announced in Y-12, effective September 1. Ronald M. Hughes has been named Utilities Foreman, in Utilities; and Robert W. Hayes is named an Inspection Foreman in the Gage Certification Lab.

Hayes, born in Powell, Tennessee, came to Y-12 November 4, 1957. He holds a BS degree in accounting from Tennessee Wesleyan College, and has done extension work through the University of Tennessee.

He served in the U.S. Air Force from 1951 until 1954.

Married to the former Irene Matthews, Hayes lives at 305 West Fernhill, Oak Ridge. The Hayes have two children, Andy, 10, and a daughter Kelly, five.

Ronald M. Hughes, Utilities, is a native of Maryville. He also served in the Air Force from 1950 until 1954, and in the Tennessee Air National Guard from 1963 until 1964.

He came to Y-12 September 28, 1954, after attending Hiwassee College, and the University of Tennessee.

Hughes is currently attending the Electronics School at Central High School, Wartburg.

Mrs. Hughes is the former Joyce Linginfelter, and they live at 145 Wade Lane, Oak Ridge. There are three children . . . Katherine, 11; David, nine and John, four. Hughes is particularly fond of hunting and fishing and dabbles in amateur photography.

Gasbuggy Film Now Available At AEC

The story of a peaceful nuclear explosion, designed to recover valuable natural resources from deep beneath the earth's surface in a remote area of New Mexico, is told in a new motion picture now available from the Atomic Energy Commission here.

The film "PROJECT GASBUGGY: The Resourceful Atom," chronicles the 1967 Gasbuggy experiment in the AEC's Plowshare Program, one of the most promising new areas for peaceful applications of nuclear energy.

The detonation of a 26-kiloton nuclear explosive in December, 1967, climaxed the joint government-industry study to determine the feasibility of recovering natural gas, trapped tightly in the ground, through nuclear explosion. The techniques exhibited in the Gasbuggy project are now being considered for recovery of other natural resources locked deep in the earth.

Through the motion picture, which is useful for both popular-level and professional audiences, the history of the experiment is traced — from its beginning at the test site east of Farmington, New Mexico, to the post-detonation evaluation of the gas reservoir in early 1968.

This 16mm, color film has a showing time of 14 and one-half minutes and may be borrowed free of charge, except for return postage, from the AEC Film Loan Library.

Texas A & M's Nuttall Guest Seminar Speaker

A special Physics Division seminar is set Friday featuring John Nuttall, Texas A&M University. His subject will be "The Asymptotic Form of Wave Functions for Three-Particle Scattering."

The seminar is set Friday, September 6, at 10 a.m., in the East Auditorium of ORNL's 4500 building.

PARENTAL CONSENT

The irate father, sarcastically, "Say, young man, it's way past midnight. Do you think you can stay with my daughter all night?"

"Gosh, sir," cried the innocent young man, "I'll have to phone Mother first and ask her."



RESEARCH SERVICES DEPARTMENT RECENTLY 'came of age' when Supervisor Don Hill, left, decided to award 25-year certificates to a 'wad' of fellow employees . . . from Hill's left, Albert F. Neubert, Ernest T. Wallace, Bruce C. Harrington, William Boatman Sr., Clarence E. "Fuzz" Harris, Thomas J. Boring, and Newton A. Stone. Congratulations, old-timers! Hill will join the select group himself next February 29, which is going to be a neat trick, since there will be no February 29 next year!

Adams' Zone System At Camera Club Tuesday

Bob Stephenson, co-chairman of the 1968 Carbide Camera Club Salon, will discuss "Ansel Adams' Zone System" at next week's Carbide Camera Club meeting. It is set for 8 p.m., Tuesday, September 10, in Fellowship Hall at the First Presbyterian Church, Oak Ridge, Turnpike and Lafayette. Adams uses this unique system of measuring the light on his subject to achieve good tone gradation in his final photograph.

In addition, contributions of Carbide Camera Club's members to the August competition will be judged and discussed. This competition, "Family Album," will demonstrate many methods of obtaining good family snapshots.

HIGHER EDUCATION

Education is the talent for describing a bathing beauty without using your hands.

Security Responsibilities Rest Entirely On Shoulders Of Individuals In Y-12!

Union Carbide and its Y-12 employees are engaged in work here relating to the nation's defense. Federal law has placed certain responsibilities upon those who have and must safeguard classified information. Careless or deliberate violation of these laws may not only cause embarrassment to both the employee and Union Carbide, but can subject the individual employee to fines and imprisonment, or both.

Under Federal statutes:

- You shall not, through your own gross negligence, permit classified information to be stolen or destroyed.
- You shall promptly report the loss or destruction of classified information.
- You shall not take, communicate or give to unauthorized persons any classified information.
- You shall not take, steal, mis-

use, or damage any property being made for the Government.

- You shall not take, steal, misuse, or damage any property belonging to the Government.

- You shall not damage or destroy any building, property, or equipment used in connection with national defense.

- You shall not photograph or make any map or sketch of anything relating to or being manufactured for the national defense, except in the performance of official duties.

- You shall not make in a defective manner any article or material which is to be used or is in any way connected with the national defense.

- You shall not hide or shield any person whom you believe or suspect has taken, communicated, lost or permitted any classified information to be stolen or destroyed.

In addition to these statutory requirements, you must comply with regulations issued by the Atomic Energy Commission, or its designated representatives, which relate to safeguarding Restricted Data and other classified information.

You are the guardian of your nation's defense!

U of Georgia's Amos Physics Seminar Guest

K. A. Amos, University of Georgia, will lead this week's Physics Division seminar. His subject will be "Inelastic Scattering of Protons."

The seminar is set for Friday, September 6, at 3:15 p.m. in the East Auditorium, ORNL's 4500 building.



E. C. GROSS, ELECTRICAL, came across this ancient photograph recently . . . believes it is a Safety Meeting in Electrical some 22 years ago. Recognize anybody? We spotted a couple of Y-12 youngsters in the picture that are still around . . . a little older and a little heavier, of course.

The Bulletin

Published Weekly For The
Y-12 Employees Of
UNION CARBIDE
CORPORATION



NUCLEAR DIVISION

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Industrial
Editors
Association

American Association Industrial Editors

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Manganese Mine To Be Phased Out

Union Carbide Corporation confirmed the news released in Guyana over the weekend that its subsidiary there is phasing out its manganese mining operations. Birny Mason, Jr., chairman of the board, stated that while the exact financial consequences of the move are unknown at present, preliminary estimates indicate a write-off of about 10 cents a share.

The corporation's subsidiary, Northwest Guyana Mining Company Limited, has been in production at Matthews Ridge, Guyana, since 1960. The mines have supplied ore for the corporation's metallurgical operations in both the United States and Norway, and the venture was profitable in its early years. However, the discovery of richer deposits in Brazil and in Africa brought about a worldwide oversupply of higher grade manganese ore and lower prices. Moreover, it became apparent that the Guyana reserves were lower in both quality and quantity than had first been thought to be the case. Extensive explorations have been conducted to determine whether nearby deposits of ore were sufficient in size and quality to give the project new viability. These have been completed and the deposits found not to be of economic worth. For these reasons it was recently decided to cease operations.

Discussions concerning the phasing out of the operations have been held with the government of Guyana, as approximately 500 local employees will be affected over the next several months. Union Carbide's subsidiary is cooperating with the government in efforts to minimize any adverse effect of the closing on these employees by assisting in the development of a large farming and cattle raising operation.

SPRAY AWAY

Water hoses made of hydrocarbon rubber remain flexible year 'round, are lightweight, and are impervious to most garden chemicals and fertilizers.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
**164 Days Or
4,870,000 Man-Hours**
(Unofficial Estimate)
Through September 2
Without A Disabling Injury
**SAFETY AT HOME,
AT WORK, AT PLAY**

'Engineering Profession'

"It is a great profession. There is the fascination of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it moves to realization in stone or metal or energy. Then it brings jobs and homes to men. Then it elevates the standards of living and adds to the comforts of life. That is the engineer's high privilege.

"The great liability of the engineer compared to men of other professions is that his works are out in the open where all can see them. His acts, step by step, are in hard substance. He cannot bury his mistakes in the grave like the doctors. He cannot argue them into thin air or blame the judge like the lawyers. He cannot, like the architects, cover his failures with trees and vines. He cannot, like the politicians, screen his shortcomings by blaming his opponents and hope the people will forget. The engineer simply cannot deny he did it. If his works do not work, he is damned.

"On the other hand, unlike the doctor, his is not a life among the weak. Unlike the soldier, destruction is not his purpose. Unlike the lawyer, quarrels are not his daily bread. To the engineer falls the job of clothing the bare bones of science with life, comfort and hope. No doubt as the years go by people forget which engineer did it, even if they ever knew. Or some politician puts his name on it. Or they credit it to some promoter who used other people's money. But the engineer himself looks back at the unending stream of goodness which flows from his successes with satisfactions that few professions may know. And the verdict of his fellow professionals is all the accolade he wants." Herbert Hoover.



Ride wanted from Vista Road, Oak Ridge, to Central Portal, straight day. C. A. Kienberger, plant phone 3-7263, home phone Oak Ridge 482-2566.

Ride wanted from Highland View School area, Oak Ridge, to East Portal, straight day. Mildred Hyp, plant phone 3-5968.

Riders wanted from South Harriman, Pine Hills or Emory Gap Area, Harriman, to any portal, straight day. Charles Wills, plant phone 3-7276, home phone Harriman 882-3957.

Car pool member wanted from Norwood section, Knoxville, to

any portal except East, straight day. Gene Keith, plant phone 3-5698, home phone Knoxville 689-2229.

Ride wanted from Karns, Circle View Subdivision, Roland Lane, Knoxville to North Portal, straight day. T. L. Williams, plant phone 3-7237, home phone Knoxville, 584-1140.

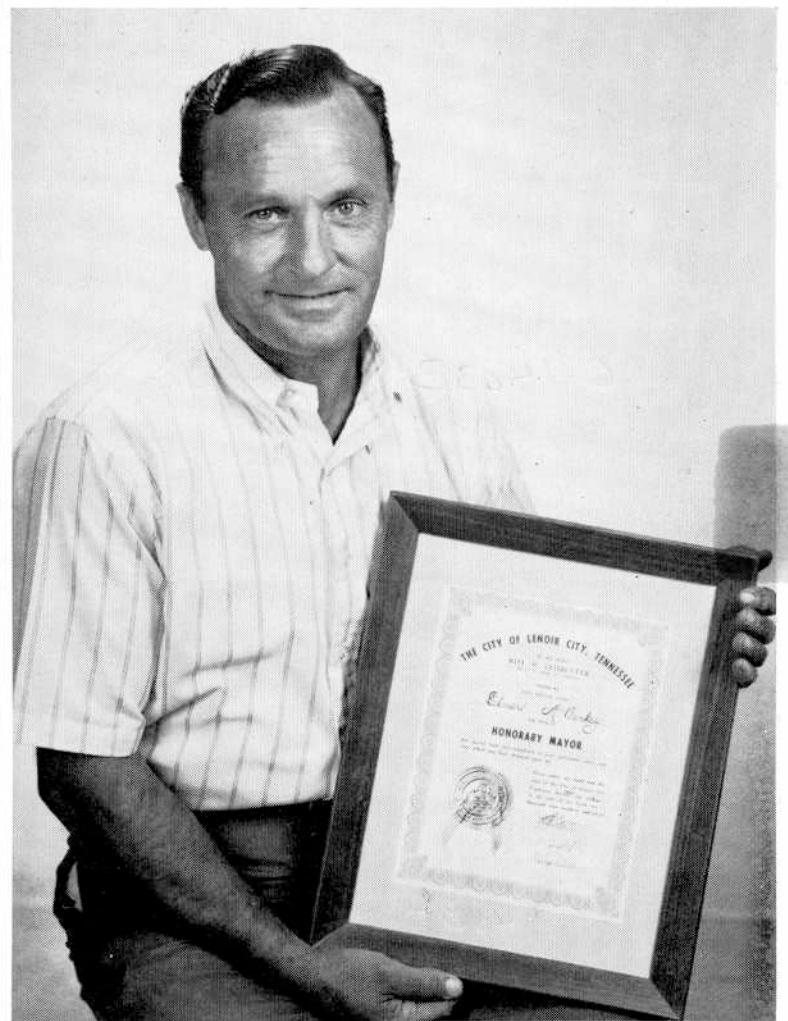
VERSATILE BRINY FACTS

Salt is one of our most plentiful raw materials. Some 36 million tons are used every year in the United States alone. Yet, only four percent of it goes into food seasoning. 64 percent of it is used by the chemical industry. The remaining 32 percent is used in other ways: such as melting snow and ice on roads, and the like.

It is always time for security.



LISA CAROLE CATLETT, five years old, won the title "Miss La Petite" of Oak Ridge recently at the pageant held at the Oak Ridge High School. She has recently returned from Memphis where she competed in the state-wide competition, capping a trophy, the fourth runner-up. Lisa is the daughter of J. B. Catlett, and Mrs. Catlett (he's in Y-12's General Metal Fabrication Shop) and the grand-daughter of William D. Blevins, Process Maintenance.



HONORARY MAYOR OF LENOIR CITY is Y-12er Elmer McConkey. His valiant efforts through the past seven years have brought the Loudon County town's recreation activities to where they just about involve everybody in town. He is seen above with a citation, recently awarded to him by the actual mayor of Lenoir City.

Elmer McConkey, Research Services, Earns Thanks Of Lenoir Citizens For Sports Work

The good deeds of Elmer McConkey, Research Services, have brought him the title "Honorary Mayor of Lenoir City."

Now, with the baseball and softball season drawing nigh to a close, McConkey may have time to enjoy his new title . . . but then football season opens this month! For the past seven years the Y-12er has devoted a major portion of his time to the youth activities in the Loudon County town. The past three years, he has been president of the city athletic association.

Presently the league is boasting 16 teams of baseball for young boys (four for the T League, six, seven and eight-year-olds); (four Pee Wees, nine and 10-year olds); (four Little League, 11 and 12); and four Pony Leagues, 13 to 16 years of age).

There are eight teams of girls . . . nine through 12, and four teams of girls 13 through 17, also.

Add to that nine teams of adult men in slow pitch . . . and six adult women's teams! Stir all these slightly . . . and come up with eight Pee Wee football teams, and you have some idea of how much the McConkeys have contributed to their community!

Presently baseball, and slow pitch occupy six nights a week . . . and football takes up two. (Mrs. McConkey . . . the former Geneva Johnston . . . manages the concession stand, at no salary. She netted \$2,538 profit last year.) Add that to the gate receipts . . . folks charge 15c to get into the games, from adults only . . . and you get the \$6,000 budget it takes to keep all the teams going each year.

For his part in all of this recreation, McConkey was recently named honorary mayor of the city of Lenoir City.

His certificate reads:

"The City of Lenoir City, Ten-

nessee, by his honor Roy M. Ledbetter, Mayor of Lenoir City, Tennessee, whereas does bestow upon Elmer McConkey the Title of Honorary Mayor for special trust and confidence in your patriotism, valor and trust which you have honored upon me. Given under my hand and the seal of the City of Lenoir City, Tennessee, this 20th day of August, in the year of our Lord, one thousand nine hundred and sixty eight.

"Signed: Roy M. Ledbetter, Mayor . . . Henry Foster, Judge . . . and Virgil Allen, chief of police."

The city merely furnishes the property on which the games are all played, but next year, thanks to the efforts of men like McConkey, the city will improve all the fields with new lights.

The McConkeys have two sons, Gerald, 15, a catcher on the Astros . . . and Johnny Ray, 19, who recently returned from summer camp obligations with the National Guard. Johnny also played in the Pony League, before he got too old.

Until McConkey began his recreation recruiting seven years ago, the only activities around town were centered around the high school. Now any kid that wants to play football or baseball can be put in uniform and on the field before you can say Elmer McConkey!

Hail to thee, honorary Mayor!

CATARACT TREATMENT

Like frost on a window pane, cataract is a cloudiness within the lens of the eye that blocks the passage of light. Surgery is the only recommended method of treatment for cataract and is successful more than 95 times out of 100 in those patients for whom an operation is recommended, advises the National Society for the Prevention of Blindness.



PRESENTING THE BIG WHITE SOX, another Y-12 entry in the Softball League. Kneeling in front, from left, are Burl Henry, B. L. Grogan, Don Forrester, Don Weigher and Manager Wayne Silvers. In the back row are Jim Hylton, assistant manager Herb Reynolds, Charles McAlister, Richard Wolny, Bill Ramsey and Bat Boy Weiger.

Case-Miller New Hoss Shoe Ringers

The Case-Miller team pulled way ahead in the Horseshoe League last week with a nine point win over Luckett-Brock, and an eight-pointer over Gray-Copeland.

Also posting nine were Y-12ers Eubanks and Raper over Young-Holsopple.

The Durham-Bailey team took six from Reed Stephens . . . and the R-S team took six from Wyatt-Hensley. Gray-Copeland lost five to the Allmon-Moody duet. Wyatt-Hensley took nine from Hutto-Tillery via forfeit.

League standings follow:

Team	W	L
Case-Miller, ORNL	41	4
Durham-Bailey, ORNL	33	12
Eubanks-Raper, Y-12	32	13
Reed-Stephens, Y-12	26	19
Allmon-Moody, ORNL	25	20
Gray-Copeland, ORNL	21	24
Wyatt-Hensley, Y-12	19	26
Luckett-Brackett, ORNL	17	28
Young-Holsopple, ORNL	9	36
Hutto-Tillery, ORNL	2	43

Big Braves Champions In Softball

The first line of business last week in the Slowpitch League was the dropping of the protest that shadowed last week's standings. The lack of protest gives undisputed title to the Braves, Y-12's fine entry in the Softball field.

Their 11 win-no loss record in the last half is equalled only by the same picture in the first half . . . 22 games now, no losses, that is, for this year only.

Two games got into the record book Monday as Y-12's Eagles skunked the Beta Two team 26 to 0 in a lopsided affray. Ron Green, Frank Koon, Wayne Speller hit homers for the winners . . . as the Beta Two team earned only four hits the entire game.

The J-Birds clipped the wings from the White Sox 14 to 2 in Monday's other game. The Birds knocked 17 hits . . . among them were homers by Charley Hill, Frank Gethers and Curtis Fox.

Three games were set and played Tuesday, as opening action gave the big Braves their 22nd victory of the year, this time at the expense of the Bat Boys. The tune was 24 to 1.

John Evans and Ted Hatcher were big heroes with homers.

The All Stars out-ran the Pirates in play 14 to 5 Tuesday. Louis Alley accounted for two homers, Bob Waters, and Ken Self, one each.

For the losers it was John Peters with a homer . . . Bob Roe with a big triple.

Tuesday's final game saw the Big Shop eke out an 18 to 17 victory (scoring seven of their 17 in the final inning) over the Gas-house Gang. Ralph Gibson got the only homer the victors knocked . . . but on the losing squad it was Charley Hensley, Bruce Marshall and Wayne Langenburg, all with one apiece.

The last night of the season saw the Colts win a forfeit victory from the Cardinals.

The Big Shops wound the sea-

Hamill-Plemons Take SW Point Golf Championship

The Bill Hamill-Ray Plemons pair eased out a two-point margin to finish up the Southwest Point Golf League, last week . . . after being smeared by Pryson-Ellis, who took undisputed second place.

The Trues tamed Mee-Wright, and the Ludwig-East team won a forfeit victory over Goodwin-Tuell.

Garber-Huddleston won five points from Groppe-Argo.

Bill Mee was low scratch turner-in of the day, with a 39. R. Ellis scored a low handicap score of 36.

Final standings follow:

Team	W	L
Hamill-Plemons	60	24
Pryson-Ellis	58	26
True-True	57	27
Ludwig-East	42	42
Mee-Wright	40	44
Garber-Huddleston	29	55
Groppe-Argo	28	56
Goodwin-Tuell	20	64

FALL FIRE HAZARDS

Fall fire hazards unfortunately are as much a part of autumn as are falling leaves. Children should be taught to stay well away from piles of burning leaves — as Halloween nears — to use flashlights instead of candles inside their jack-o-lanterns and to wear only 'flameproof' costumes.

TO BE YOUNG AGAIN

The next time you catch yourself sighing to be 18 again . . . remember things like Selective Service, algebra, and clothes that never fit!

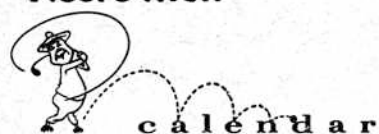
son up with a 22 to 13 victory over Beta Two Wednesday.

Bill Brucker batted two homers, as did Harley Law. Perry Bullard poled one.

Final standings follow:

Team	W	L
Braves, Y-12	11	0
K-25 Colts	10	1
K-25 Gas-house Gang	7	4
Cardinals, Y-12	6	5
Jay Birds, K-25	6	5
Big Shops, Y-12	6	5
Pirates, Y-12	5	6
Eagles, Y-12	5	6
UCC All Stars, Y-12	3	8
Bat Boys, Y-12	2	9
Beta Two, Y-12	2	9
White Sox, Y-12	2	9

Recreation



Saturday, September 7

GOLF: Final Tournament of the year, Wallace Hills.

Monday, September 9

BOWLING: 5:45 p.m. C League, Ark Lanes.

PHYSICAL FITNESS (Women): 7:30 p.m. Oak Ridge High School Girls' Gym.

Tuesday, September 10

PHYSICAL FITNESS (Men): 7:30 p.m. Oak Ridge High School Gym.

PISTOL LEAGUE: 6:15 p.m. Oak Ridge Sportsmen's Association.

CAMERA CLUB: 8 p.m. First Presbyterian Church, Oak Ridge.

Wednesday, September 11

BOWLING: Mixed League, 8 p.m. Ark Lanes.

Thursday, September 12

BOWLING: Classic League, 5:45 p.m., Ark Lanes.

HORSESHOE: (Final toss): 7 p.m., City Courts, Jackson Square.

Bowlers Begin Alley Action This Week

Y-12 bowlers hit the alleys this week and next. The Mixed League is first on the alleys . . . tonight, Wednesday, September 4, with eight teams . . . the Classic League debuts tomorrow, Thursday, September 5. A total of 16 teams are in the Classic and they roll Thursday, 5:45 p.m.

Next off is the 12-team C League, Monday, September 9, at 5:45.

Wright-Butler Are Golf Tops At Melton Hill

The Mack Wright-Herm Butler duo came on atop the Melton Hill Golf League in final fairway action last week, by a mere point. They downed the Rogers-Thompson pair for the full count of Six.

Also winning six were Alvey-Phillips over Holley-Tilley, Butler-Stinnett over Carter-Jones and Morehead-Poly over Clabough-Nobles.

Capping four were Burrus-Bell over Culberson-Tiller, and Hamby-Braden over Winstead-Ferguson.

Brice Burrus fired a low scratch score of 40 . . . while J. R. Parker turned in a 31 handicap low.

Final league standings:

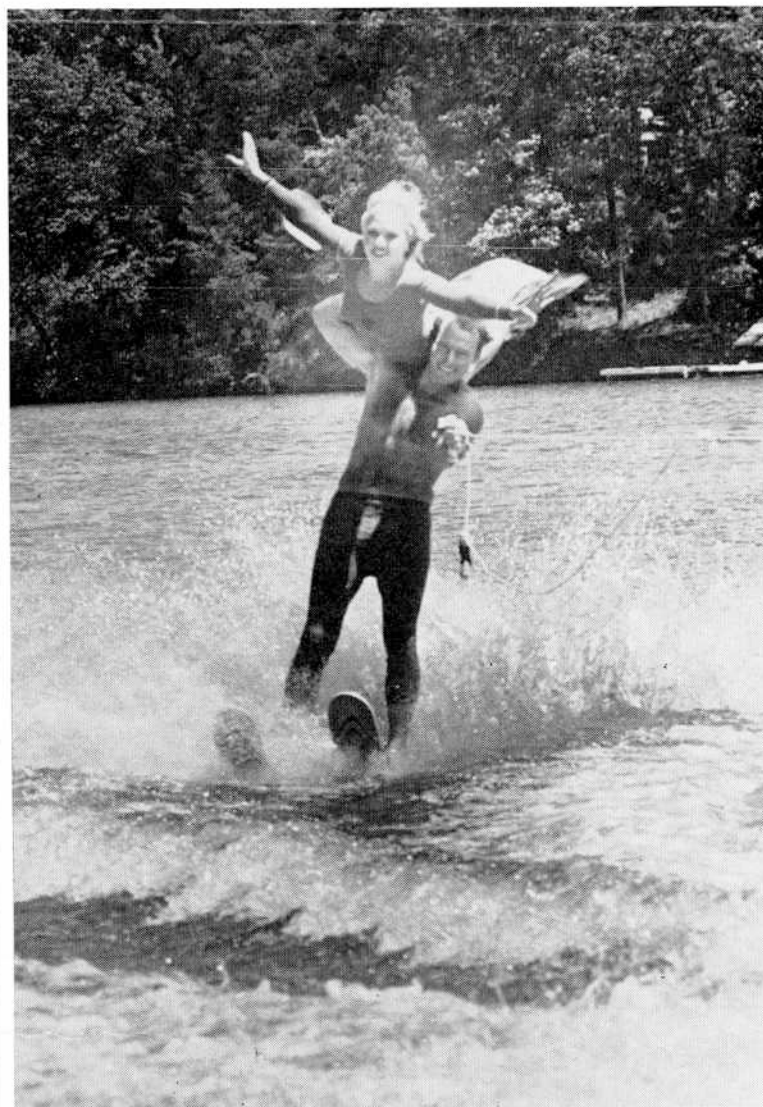
Team	W	L
Wright-Butler	58	20
Winstead-Ferguson	57	21
Alvey-Phillips	52	26
Burrus-Bell	47	31
Hamby-Braden	46	32
Culberson-Tiller	44	34
Parker-Parrott	42	36
Clabough-Nobles	38	40
Rogers-Thompson	34	44
Gresham-Brown	33	39
Holley-Tilley	25	47
Carter-Jones	22	56
Butler-Stinnett	22	56
Morehead-Poly	20	58

FIRE VICTIMS

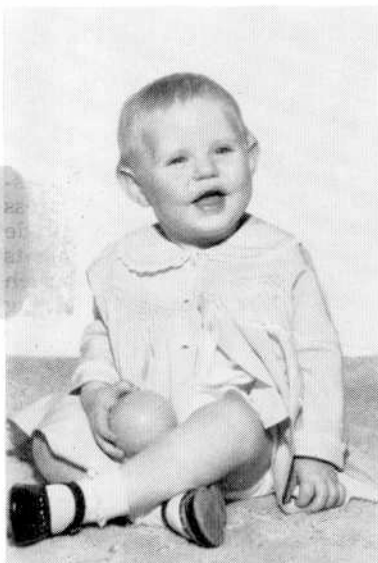
The very young and the elderly are fire's chief victims. An estimated 12,200 persons lost their lives in fires in the United States last year, according to the National Fire Protection Association. About one-third of these were children.

STONE AGE

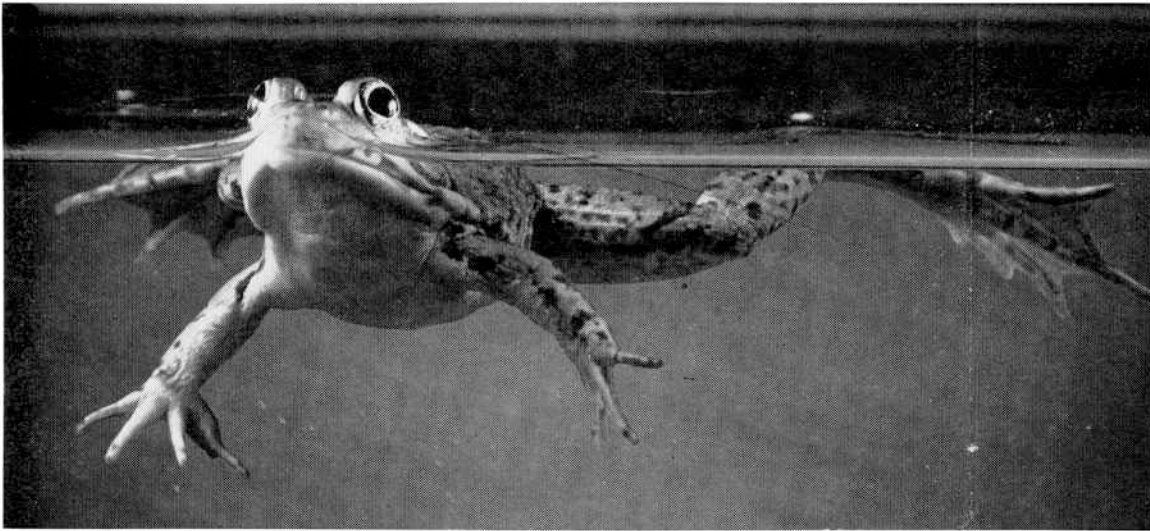
Stone age has been defined as from 16 to 60 . . . and the bigger the stone, the better she'll like it.



SHERRI SHIRLEY SAILS gracefully on the shoulders of an expert skier with the Tommy Bartlett Water Ski Show, Wisconsin Dells, Wisconsin. Earlier this year she appeared in the Mercury Outboard Water Show at the Hemisfair, San Antonio, Texas, as one of the Bartlett Aqua Belles. Sherri attended elementary school in Oak Ridge and Alcoa, graduated from Palm Beach High School, West Palm Beach, Florida; and attended Palm Beach Junior College. She is the daughter of James A. Shirley, Y-12's Process Maintenance Department.



MICHELLE LYNN PEGEL is only one year old and the only grand-child of J. B. Fincher Jr., 9766 Machine Shop. She lives with her parents in Clarksville. Fincher says he had two sons married, however, in the past June . . . so perhaps Michelle will have cousins one of these fine days.



RANA CATESBEIANA . . . OR THE BULLFROG, as we all know him, is the subject of this remarkable photograph by Grant Heilman. Heilman's work is the September attraction at the Art Center Gallery, Badger Lane, Oak Ridge.



FEEDER LINES OF RAILROAD make an interesting pattern for Grant Heilman, photographer from Lititz, Pennsylvania. Heilman's work will be displayed at the Oak Ridge Art Center's Gallery through most of September.

Art Center Will Show Photographs

The Carbide Camera Club is co-sponsoring with the Oak Ridge Community Art Center a unique exhibit, to open the fall season. A collection of photographs by Grant Heilman, well-known freelance agricultural photographer, will be shown through the rest of September.

The show opens Sunday, September 8 at 3 p.m., and will continue through September 29. On the opening day Sunday, Mr. and Mrs. Heilman will be honored at a receipt at 4 p.m., at the Art Center's Badger Avenue Gallery. He will present a gallery talk, followed by a question and answer period.

In describing his work, Heilman, who lives in Pennsylvania, says, "I travel throughout the United States photographing all phases of farming activity. My clients include 500 magazines, advertisers and textbooks."

Heilman's exhibit is open to members of the Carbide Camera Club and the Art Center without charge. A nominal admission fee will be charged for the general public.

Gallery hours at the Gallery are from 3 to 6 p.m., Sundays; 9 a.m. to 1 p.m. Monday through Friday, and 10:30 to 12:30 p.m. Saturday.

Bees-Wax Demand Exceeds Bee's Capacity

Ladies have been using cold cream for thousands of years. One of the greatest cold cream discoveries in history was made by the celebrated physician of the second century, Galen, when he compounded "Cerate," a cold cream containing beeswax. Today, the demand for beeswax — in cold creams, candles, and many other everyday items — far exceeds the bee's capabilities. So, chemists produce its various components synthetically and have greatly improved on Galen's formula by adding special surfactants and emulsifiers, which provide a proper balance between acidity and alkalinity and guarantee freeze-thaw stability.

COSTLY COLDS

Common colds cost industry more than five billion dollars a year!

development. He celebrated his 15th anniversary recently with Union Carbide Corporation, and was listed in error as Robert C. Wal-drop.



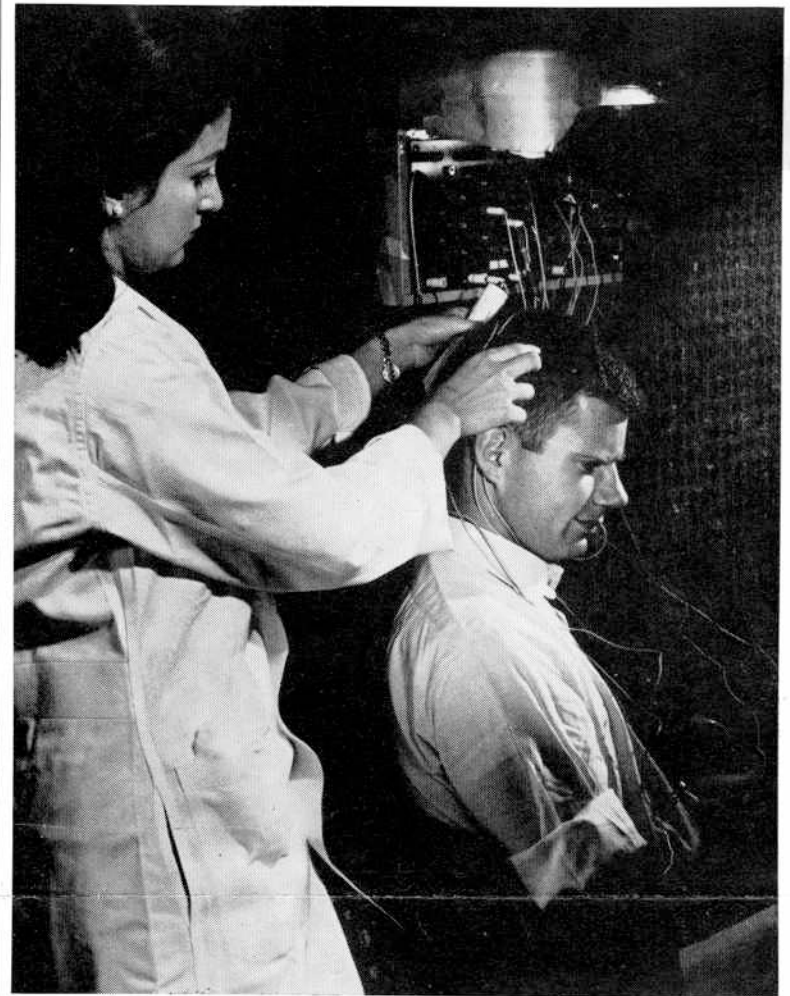
FUTURE MISS AMERICA . . . say about 1985, is little Tonya Leigh Johnson, daughter of Mr. and Mrs. Thomas M. Johnson, Knoxville. Tonya was one year old on August 26 and is the granddaughter of J. M. Johnson, Biology Maintenance.



UNION CARBIDE CORPORATION
NUCLEAR DIVISION
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THE MECHANISMS OF THE MIND are being explored at the University of California's Brain Research Institute by means of electrodes attached to the subject's head by a lab technician to measure the tiny changes in electrical current when the brain experiences stress conditions. New developments in brain research will be reported on "The 21st Century" episode, "The Miracle of the Mind," Sunday September 8, at 6 p.m., EDT, in color on the CBS Television Network. The program is carried by Knoxville TV station WBIR-TV, Channel 10. CBS News Correspondent Walter Cronkite is principal reporter for the series which is sponsored in the public interest by Union Carbide Corporation.

'Miracle Of The Mind' 21st Century Topic For Sunday's Television Program

"By the twenty-first century, the human mind may know how to redesign the human mind," says Walter Cronkite in "The Miracle of the Mind," an episode of "The 21st Century" that will be broadcast Sunday, September 8, at 6 p.m., EDT, in color on the CBS Television Network. Cronkite, a CBS News Correspondent, is principal reporter for the series, sponsored in the public interest by Union Carbide Corporation. The program is carried in Knoxville by WBIR-TV, Channel 10.

In this report, psychologist David Krech of the University of California tells about the possible control of the mind through drugs. Krech says he expects "we will have a series of fairly specific drugs which will have fairly specific effects on the brain, and therefore on the mind: a drug which will enable us to expand, extend, or contract the attention span of the individual or a drug which will improve the memory capacity of an individual.

Measurement of the electrical

changes in a young man's brain as a result of emotional stress is shown in an experiment at the UCLA Brain Research Institute. The reaction of the brain to questions calculated to produce stress is measured by means of electrode attached to his scalp. Experiments on animals also are shown, such as the conversion of a fighting bull into a contented Ferdinand by means of an electrical current sent to his brain from a radio transmitter.

"The Miracle of the Mind" was written by Judy Towers. Fred Warshofsky is science editor for the series; Isaac Kleinerman producer, and Burton Benjamin executive Producer.

"The Miracle of the Mind" Sunday, September 8, at 6 p.m., WBIR-TV, Channel 10.

TIME MARCHES ON!

A pity. The boy who got a wristwatch when he graduated from high school now has to buy his kindergarten son one!

Today is safety day.



The fair days of September come to more Y-12ers, observing important landmarks with Union Carbide Corporation. Congratulations.

25 YEARS

Carl W. Kidd, Material Packing and Transfer, September 8.

Eugene Clowers, Utilities Administration, September 9.

Astor A. Woods, Process Maintenance, September 10.

20 YEARS

William A. Nichols Sr., Material Packing and Transfer, September 7.

15 YEARS

Earl W. Stooksbury, Chemical Engineering Development, September 4.

William C. Hatmaker, Physical Testing, September 8.

James R. Taylor, General Expediting and Auxiliary Services, September 8.

Apologies to **Rayburn C. Wal-drop**, Ceramics and Plastics De-